

Application No. 10/022,269
Amendment dated January 17 2006
Reply to Office Action of October 5, 2005

Docket No. MESH032

Amendment to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (currently amended) A method for transmitting a data packet from a mobile node in a mobile ad-hoc communications network, said data packet being addressed to a destination node in said network, the method comprising:

transmitting a request to send message from said mobile node directed to a plurality of other relay nodes in said network;

receiving by said mobile node a respective clear to send message from at least one of said plurality of relay nodes; and

transmitting said data packet from said mobile node to said at least one of said plurality of relay nodes; and

transmitting said data packet from each of said at least one of said plurality of relay nodes to said destination node, each respective one of said other nodes in said network upon said mobile node receiving a respective clear to send message from said each respective other node.

2. (currently amended) A method as claimed in claim 1, further comprising:

receiving a plurality of realizations of said data packet sent to said other nodes at said a destination node via said at least one of said a plurality of relay nodes; and

processing said received plurality of realizations at said destination node to minimize a likelihood of packet error.

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3. (currently amended) A method as claimed in claim 2, wherein:
when said destination node receives said plurality of realizations of said data packets in a Rake window, said destination node combines said plurality of realizations of said data packet; and
when said destination node receives said plurality of realizations of said data packets outside of said Rake window, said destination node buffers said data packets in a delay jitter buffer and selects one of said data packets meeting a certain criteria.
4. (cancelled)
5. (cancelled)
6. (currently amended) A method as claimed in claim 1, wherein:
said data packet transmitting narrowcasts said data packet to said at least one of said plurality of relay other nodes.
7. (original) A method as claimed in claim 6, wherein:
said narrowcast includes a plurality of unicasts.
8. (currently amended) A method as claimed in claim 1, wherein:
said request to send message and said clear to send messages each include unicast addressing information representing an available number of routes in said network via which to route said data packet to said destination node, each of said available routes including at least one of said other plurality of relay nodes.

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9. (currently amended) A method for transmitting communicating a data packet addressed to a destination node from each of a plurality of relay nodes in a mobile ad-hoc communications network to said destination node a mobile node in said network, the method comprising:

transmitting a request to send message from each of said plurality of other relay nodes in said network to said destination mobile node;

transmitting a clear to send message from said destination node to at least one of said plurality of relay nodes; and

transmitting said data packet from said at least one of said plurality each respective one of said other relay nodes in said network to said mobile destination node upon each of said other nodes receiving a respective clear to send message from said mobile node.

10. (cancelled)

11. (cancelled)

12. (currently amended) A mobile node in a mobile ad-hoc communications network, adapted to transmit a data packet being addressed to a destination node in said network, said mobile node comprising:

a transmitter, adapted to transmit a request to send message from said mobile node directed to a plurality of other relay nodes in said network; and

a controller, adapted to receive a respective clear to send message from at least one of said plurality of relay nodes, and further adapted to control said transmitter to transmit said data packet to each respective one of said at least one of said plurality of other relay nodes in said network upon said mobile node in response to receiving said a respective clear to send message from said each respective other node.

13. (cancelled)

14. (cancelled)

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15. (currently amended) A mobile node as claimed in claim 12, wherein:
said transmitter narrowcasts said data packet to said ether at least one of said plurality of relay nodes.

16. (currently amended) A mobile node as claimed in claim 12, wherein:
said request to send message and said clear to send messages each include unicast addressing information representing an available number of routes in said network via which to route said data packet to said destination node, each of said available routes including at least one of said ether plurality of relay nodes.

17. (currently amended) A mobile ad-hoc communications network, comprising:
a mobile node; and
a plurality of ether relay nodes, being within broadcast distance of said mobile node;
said plurality of relay nodes being adapted to transmit a request to send message to a said mobile node in said network;
said mobile node being adapted to transmit a clear to send message to each at least one of said plurality of relay nodes when said mobile node is capable of receiving a data packet from said at least one each of said plurality of relay nodes; and
each of said at least one of said plurality of relay nodes being adapted to transmit said data packet to said mobile node upon receiving a respective said clear to send message from said mobile node.

18. (cancelled)

19. (currently amended) A mobile ad-hoc communications network as claimed in claim 17, wherein:
said at least one of said plurality of relay nodes transmit said data packet to said mobile node after every one of said at least one of said plurality of relay nodes has received a respective said clear to send message from said mobile node.

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20. (currently amended) A mobile ad-hoc communications network as claimed in claim 17, wherein:

at least one of said plurality of relay nodes is mobile.